



Applicant's
exact claim
1 neg. electrode

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(54) LITHIUM SECONDARY BATTERY

(57) Abstract:

PROBLEM TO BE SOLVED: To provide a secondary battery with little deterioration in characteristics, even at high temperature storage by using a mono layer lithium - containing composite nitride having hexagonal system crystal structure as the negative active material.

SOLUTION: A lithium - containing composite nitride represented by formula, Li_3-XMXN is used as a negative active material. In the formula, M represents and least one transition element selected from among the group

comprising Ti, V, Cr, Mn, Fe, Co, Ni, and Cu, and X represents a real number indicated by $0.1 \leq X \leq 0.8$. A nitride containing no lithium oxide and lithium hydroxide, which are impurities, is preferred. The nitride synthesized by having at least one kind of an alloy of lithium and the transition element M and an intermetallic compound of lithium and the transition element M react with nitrogen is referred. By raising the purity of the composite nitride, deterioration of battery characteristics at high temperature storage times can be retarded.

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